CLAIMS

1. An instrument for assessing changes in a superficial structural matrix of the skin of a patient comprising:

means for measuring fluorescence; and

means for measuring scattering.

2. A non-invasive method of assessing a change in the superficial structural matrix of a tissue comprising:

exposing the tissue to radiation at a first wavelength;

detecting an amount of fluorescence emitted by exposed tissue;

exposing the tissue to radiation of a second wavelength;

detecting an amount of scattering re-emitted from the exposed tissue; and

deriving an indication representative of the change in the superficial structural matrix of the tissue based on of the amount of fluorescence detected and the amount of scattering detected.

3. The method of claim 2 wherein the first wavelength is between about 320 and 420 nm.

4. The method of claim 2 wherein the second wavelength is between about 330 and 420 nm.

5. The method of claim 2 wherein the first wavelength and the second wavelength are the same.

6. The method of claim 2 wherein the tissue is skin or mucosa.

7. An instrument for assessing changes in the environment of the matrix components of a tissue comprising:

means for measuring fluorescence; and

means for measuring scattering.

8. A non-invasive method of assessing a change in the environment of the matrix components of a tissue comprising:

exposing the tissue to radiation at a first wavelength;

detecting an amount of fluorescence emitted by exposed tissue;

exposing the tissue to radiation of a second wavelength;

detecting an amount of scattering re-emitted from the exposed tissue; and

deriving an indication representative of the change in the environment of the matrix components of the tissue based on of the amount of fluorescence detected and the amount of scattering detected.